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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,281	03/23/2004	Shany Elkarat	27300	1844

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EXAMINER

ZEWDU, MELESS NMN

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/806,281	Applicant(s) ELKARAT ET AL.	
	Examiner Meless N. Zewdu	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-14 and 17-39 is/are rejected.
- 7) ☒ Claim(s) 10, 15 and 16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/2/05 & 11/17/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. This action is the first on the merit of the instant application.
2. Claims 1-39 are pending in this action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 rejected under 35 U.S.C. 102(b) as being anticipated by Hronek (US 6,564,055 B1).

As per claim 1: Hronek discloses a remote preference unit influencing visited network selection by roaming units (see abstract, particularly, lines 1-21), the preference unit comprising:

a detection unit for detection of roaming activity by mobile units (see abstract, particularly, lines 16-24; col. 5, lines 18-34). When a mobile enters a new geographic area (visited area/network), a detectable triggering event is generated in the network.

a database indicative of preference networks for selection by roaming units, and an output unit, associated with said detection probe and said database to output

Art Unit: 2683

indications to influence network selection by said detected roaming unit (see abstract, particularly lines 1-24; col. 3, lines 40-61).

As per claim 2: Hronek discloses a remote preference unit, further comprising logic for assigning different preference information under different conditions (see col. 6, lines 60-64). New location, selecting of particular subscription plan and time of day are different conditions.

As per claim 3: Hronek discloses a remote preference unit, wherein said conditions comprise time, such that different network selection preferences are sent out based on different times (see col. 6, lines 60-64). Hronek provides different network selection preferences, which can be downloaded to individual mobiles based on time of day.

As per claim 4: Hronek teaches a remote unit (IRDB), wherein a time used to set said preferences is local time at a roaming location (see col. 6, lines 60-64). According to the prior art, time of day is dependant upon current location of a roaming mobile, hence, local.

As per claim 5: Hronek discloses a remote preference unit, wherein said conditions comprise one of profile settings and abilities of an individual roaming handset (see col. 3, lines 45-60). Examiner considers ability as ability of the handset to receive/download preferred roaming list from a remote database and roam using the same.

As per claim 6: Hronek discloses a remote preference unit, wherein said conditions are based on a segment/group of users to which a current handset belongs, such that said preference information is applied to differently to different segments (see col. 5, lines

Art Unit: 2683

13-2). The prior art discloses that only handsets located in a relevant geographic region are updated.

As per claim 7: Hronek discloses a preference unit, wherein said conditions comprise the proportions of roaming users currently connected to different available networks in a give roaming region (see col. 5, lines 58-67).

As per claim 9: Hronek discloses a remote preference unit, wherein said output indications are rejection signals to roaming request attempts to respective non-preferred roaming networks (see col. 2, lines 47-56).

As per claim 11: Hronek discloses a remote preference unit, wherein said indication comprises an up-to-date version of at least a part of said database for downloading to said detected mobile units (see abstract, at least lines 1-24), said mobile units thereby being able to consult said up to date version for network selection (see col. 2, lines 23-28; col. 11, lines 40-47)

As per claim 17: Hronek discloses a remote preference unit, wherein said output unit further comprises an association with said probe for rejecting a roaming request from a respective non-preferred roaming network, in association with said download of said up to date version (see col. 2, lines 47-56).

As per claim 39: Hronek discloses a roaming network selection influencing method for influencing mobile units regarding network selection when connecting in a roaming environment having a plurality of available networks (see abstract, at least lines 1-24), the method comprising:

Art Unit: 2683

probing roaming connection control signaling between said mobile telephone unit and mobile network infrastructure to obtain an indication that a given unit is attempting a roaming connection from a given roaming environment (see abstract, particularly, lines 16-24; col. 5, lines 18-34).

checking a database giving a preference order amongst available networks in said roaming environment (see abstract, lines 1024; col. 5, lines 27-42).

If said roaming control signal indicates that said mobile telephone unit is making a current roaming request via a non-preferred network then controlling said connection control signaling to refuse a roaming request to non-preferred network (see col. 2, lines 32-56, particularly lines 42-56), thereby to cause said mobile unit to find another network within said environment to reattempt a roaming request (see col. 6, lines 7-15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12, 13, 18-20, 22-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hronek, as applied to claims 1 and 11 above, and further in view of Molne (US 5,999,822). For examination purpose, claim 18 is considered first.

As per claim 18: Hronek discloses a mobile infrastructure (fig. 1), comprising:

a connection control path (initial detection) for passing binary data for individual mobile telephony connections(see col. 5, lines 21-34). The **connection control path** is a control signal establishing at the time of registration between a network and a mobile device.

passing/downloading binary data for updating control information at an individual mobile unit (see abstract; col. 5, lines 21-34). The over-the- air downloaded data includes application and preferred roaming list. But, Hronek does not explicitly teach about a card control path and an operable connection between said connection control route and said card control route to enable data obtained from said connection control route to be used to activate an update operation via said card control route, as claimed by applicant. The card control path and connection control path are directed to the connections between the mobile unit and the network (connection control path) on one hand, and a SIM card and the air interface of the host mobile unit (card control path) on the other. However, in a related field of endeavor, Molne teaches a about a mobile telephone for roaming, including a SIM card (see fig. 2, elements 32 and 41) wherein the SIM card is stored with a preferred roaming list (PRL) and is updatable either by an operator via over air interface or by a user via keyboard (see col. 3, lines 33-56). The activation/update of data in the SIM card is obviously done via the connection shown between the mobile station 32 and SIM card 41, as evidenced on fig. 2. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Hronek with that of Molne for the advantage of providing

Art Unit: 2683

conventional wireless service providers a flexibility to adjust roaming priorities (see col. 3, lines 13-20).

As per claim 12: but, Hronek does not explicitly teach about a remote preference unit comprising a connection to a SIM card infrastructure, through which to download said up to date version to said mobile units, as claimed by applicant. However, Molne, in a related field of endeavor, teaches the recited feature (see fig. 2; col. 2, line 65-col. 3, line 6). Motivation is the as provided in the rejection of claim 18 above.

As per claim 13: Hronek teaches a preference unit, wherein said connection is operable to download said up to date version using SMS (see col. 11, lines 15-22).

As per claim 19: Hronek teaches a mobile infrastructure, wherein said connection control route is a roaming control route for controlling roaming telephony connections (see figs. 1 and 2; abstract; col. 5, lines 21-34).

As per claim 20: Hronek teaches a mobile infrastructure, wherein said connection control route is an SS-7 based control route (see fig. 2; col. 2, lines 7-13).

As per claim 22: Molne teaches a mobile infrastructure, wherein said update operation is an operation to provide a given mobile unit with up-to-date information regarding current roaming environment (see col. 3, lines 21-56, particularly lines 46-56).

As per claim 23: Molne teaches a mobile infrastructure, wherein said up-to-date information comprises updating one of a group of SIM card network location features comprising a preference network (PLMSEL) file, a most recently used field (RPLMN) field of an LOCI file and a forbidden network (FPLMN) file (see col. 21-56, particularly lines 46-56; col. 8, lines 53-62). Updating a preferred roaming list stored in a SIM

Art Unit: 2683

satisfies at least one of a group of SIM card network location features as required by claim 23.

As per claim 24: Molne teaches a mobile infrastructure, wherein said data obtained from said connection control route (air-interface) is an indication of a given mobile unit roaming in a given roaming environment (see col. 3, lines 46-56; col. 4, lines 36-52).

As per claim 25: the feature of claim 25 is similar to the feature of claim 22. An updated, preferred roaming list (PRL) includes a plurality of selectable networks available in a current roaming environment, as taught by Molne (see col. 3, lines 33-56). Hence, claim 25 is rejected on the same ground as claim 22.

As per claim 26: Hronek teaches a remote preference unit, further comprising logic for assigning different preference information under different conditions (see col. 6, lines 60-64). New location, selecting of particular subscription plan and time of day are different conditions.

As per claim 27: Hronek teaches a remote preference unit, wherein said conditions comprise time, such that different network selection preferences are sent out based on different times (see col. 6, lines 60-64). Hronek provides different network selection preferences, which can be downloaded to individual mobiles based on time of day.

As per claim 28: Hronek teaches a remote unit (IRDB), wherein a time used to set said preferences is local time at a roaming location (see col. 6, lines 60-64). According to the prior art, time of day is dependant upon current location of a roaming mobile, hence, local.

As per claim 29: Hronek teaches a remote preference unit, wherein said conditions comprise one of profile settings and abilities of an individual roaming handset (see col. 3, lines 45-60). Examiner considers ability as ability of the handset to receive/download preferred roaming list from a remote database and roam using the same.

As per claim 30: Hronek teaches a remote preference unit, wherein said conditions are based on a segment/group of users to which a current handset belongs, such that said preference information is applied to differently to different segments (see col. 5, lines 13-2). The prior art discloses that only handsets located in a relevant geographic region are updated.

As per claim 31: Hronek teaches a remote preference unit, wherein said output indications are rejection signals to roaming request attempts to respective non-preferred roaming networks (see col. 2, lines 47-56).

Claims 8, 21 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references applied to claim 18 above and further in view of Jiang et al. (US 2004/0087305 A1). For examination purpose, claim 32 is considered first.

As per claim 32: the references applied to claim 18 above, do not explicitly teach about a mobile infrastructure, further comprising an output unit for sending a roaming rejection signal to anon-preferred network through which a roaming mobile telephony connection is being attempt, as claimed by applicant. However, in a related field of endeavor, Jiang teaches about a system and apparatus for redirecting wireless network traffic, wherein the embodiments include determining a roaming mobile initiates a registration attempt with a non-preferred network and causing the roaming mobile station to initiate a

Art Unit: 2683

registration attempt with a preferred network, including, if a subscriber is on a non-preferred network, sending an update location end message (see abstract; page 7, paragraphs 0109-0110). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Molne with the teaching of Jiang for the advantage of providing a network operator some control over a roaming subscriber handset even when a handset has initiated a registration attempt with a non-preferred network for any reason (see page 2, paragraph 0017).

As per claim 33: Jiang teaches a mobile infrastructure, further comprising a preference unit for rejecting a request to use a non-preferred network by preventing reply signaling and thereby causing said request to time out (see page 7, paragraphs 0109-0112).

As per claim 21: Jiang teaches a mobile infrastructure, wherein said connection control route is a MAP based control route (page 6, paragraph 0108; page 9, paragraph 0163).

As per claim 8: Hronek does not explicitly teach about a remote preference unit, wherein said output signal is a failure to reply to a roaming request in a given time, thereby inducing a time-out to said request, as claimed by applicant. However, in a related field of endeavor, Jiang teaches about a cellular network traffic redirection technique wherein when a roaming mobile unit attempts to register on a VPMN, the attempt to update location is aborted (paragraphs 0107-108). Since location update/registration is based on a specified time, expiration of that specified time is obvious from Jiang's teaching (see also page 6, paragraph 0092). Motivation is the same as provided in the rejection of claim 32.

Art Unit: 2683

Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hronek in view of Nguyen (US 5,564,068).

As per claim 34: Hronek discloses an updating method for updating programmable setting on a mobile telephone unit (see abstract, at least lines 1-24), comprising:

outputting update information to said mobile telephone unit to update programmable settings thereof (see abstract, particularly, lines 1-24; col. 3, lines 40-60). But, Hronek does not explicitly teach about probing connection control signaling between a visited and home network of said mobile telephone unit, as claimed by applicant. However, in a related field of endeavor, Nguyen teaches about a roaming technique wherein a signaling link (control signaling) is provided between the home network and the visited network (see col. 4, lines 7-19). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Hronek with that of Nguyen for the advantage of indicating a visited network that there is an automatic roaming agreement between the home network and the visited network (see col. 4, lines 11-16). Note: when these two related and pertinent references are combined, the outputting of the update information will be in response to the control exchanged between the home network and visited network.

As per claim 35: Kronek teaches, a method wherein said update information comprises updated preference data ranking said available roaming network in an order of selection preference (see abstract, lines 1-24; col. 2, lines 22-28). Assignment of priority is ranking in an order of selection, and what is updated is the PRL list in a mobile unit.

When the references are combined as discussed in the rejection of claim 1 above, the

Art Unit: 2683

modified reference will include an updating method, wherein said connection control signaling comprises data regarding roaming activity of said mobile unit in any one of a plurality of roaming environments, each roaming environment comprising a plurality of available roaming networks to which said mobile unit is able to make a roaming connection as taught by Nguyen (see col. 4, lines 7-19).

As per claim 36: Hronek teaches an updating method, comprising said update information available via at least one of a group comprising binary SMS and GPRS (see col. 11, lines 15-22). At least one of a group is satisfied by the provision of SMS.

Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references applied to claims 34-36 above, and further in view of Molne.

As per claim 37: the references applied to claims 34-36 above do not explicitly teach about making an update information available to a programmable telephone setting card of said mobile unit, as claimed by applicant. However, in a related field of endeavor, Molne teaches about updating information available to a programmable telephone setting card of a mobile unit (see fig. 2, elements 32 and 41; col. 3, lines 33-56).

Motivation is same the as provided in the rejection of claim 12.

As per claim 38: Molne teaches an update method, wherein said programmable phone setting card is a subscriber identification module (SIM) (see fig. 2, element 41; col. 3, lines 21-56).

Art Unit: 2683

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references applied to claims 1, 11 and 12 above, and further in view of Martschitsch (US 2002/0193127 A1).

As per claim 14: the above references (applied to claims 1, 11 and 12) do not explicitly teach about a remote preference unit, wherein said connection is further operable to download an applet to said mobile unit to govern use of said up to data version, as claimed by applicant. However, in a related field of endeavor, Martschitsch teaches about a roaming mobile radio telephone (page 2, paragraph 0028) with a SIM card which is capable of downloading/receiving an applets, wherein the applet is used to process/manage displayed menu elements on the mobile device (JAVA-applets) (see page 2, paragraphs 0026 and 0035). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to further modify the above references with the teaching of Martschitsch for the advantage of preparing and transmitting SMS messages in a mobile radio network (see paragraph 0002).

Allowable Subject Matter

Claims 10, 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2683

Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Meless Zewdu

A handwritten signature in cursive script, appearing to read "Meless Zewdu", written in black ink.

Examiner

08 December 2005.